CLAIMS

1 – Phototherapy equipment comprising a light source (5, 49), a light guide (6, 46) suitable for directing the light to the inlet of a terminal pen (4, 50) for projecting a light beam onto living tissues, characterized in that it comprises at least one plate (28, 70) at the outlet of the polarizer (25, 65) arranged to give the light a defined, clockwise or counterclockwise direction (D, L) of polarization.

2 – The equipment as claimed in claim 1, characterized in that the plate (28, 70) is a quarter-wave plate.

3 – The equipment as claimed in claim 1, characterized in that the plate (28, 70) is a half-wave plate.

4 – The equipment as claimed in one of the claims 2 or 3, characterized in that the plate is positioned according to two positions of use.

5 – The equipment as claimed in claim 4, characterized in that the plate is positioned at approximately 45° to the left or at approximately 45° to the right of a neutral position.

6 – The equipment as claimed in one of the claims 4 or 5, characterized in that the two positions are obtained under the action of a micro-motor acting in clockwise (D) or counterclockwise (L) rotation.

8 – The equipment as claimed in one of the claims 1 to 7, characterized in that the light guide is an optical fiber cable.

9 – The equipment as claimed in one of the claims 1 to 8, characterized in that the pen (4, 50) includes an iris (31, 74).

10 – The equipment as claimed in claim 1, characterized in that it includes a barrel (10) provided with filters, Fi, of different wavelengths connected to a drive unit, the barrel being arranged at the outlet of the light source.

11 – The equipment as claimed in one of the claims 1 to 9, characterized in that the polarizer is a circular polarizer.

12 - The equipment as claimed in one of the preceding claims, characterized in that the polarizer is an elliptical polarizer.

13 – The equipment as claimed in one of the claims 1 to 12, characterized in that the light source (5, 49) is a halogen or xenon lamp equipped with monochromatic filters.

14 – The equipment as claimed in one of the claims 1 to 12, characterized in that the light source (5, 49) is a laser diode.

15 – The equipment as claimed in one of the claims 1 to 11, characterized in that the light source comprises a set of laser diodes of different colors.

16 – A method of cosmetic treatment of tissues of biological cells by phototherapy comprising the irradiation of the tissue with incoherent and/or coherent, polarized monochromatic light, characterized in that the wavelength to be used is selected and the direction of polarization of the light is determined so as to adapt this dextrorotatory or levorotatory orientation to the right or left chirality of the molecules in relation to the treatment to be applied.

17 – A method for application in food-processing industry for the treatment of tissues of biological cells by phototherapy comprising the irradiation of the tissue with incoherent and/or coherent, polarized monochromatic light, characterized in that the wavelength to be used is selected and the direction of polarization of the light is determined so as to adapt this dextrorotatory or levorotatory orientation to the right or left chirality of the molecules in relation to the treatment to be applied.

18 – The method as claimed in claim 16 or 17, characterized in that a quarter-wave plate is used.

19 – The method as claimed in claim 16 or 17, characterized in that a half-wave plate is used.

20 – An application of the equipment as claimed in one of the claims 1 to 15 to the treatment of biological cells by phototherapy comprising the irradiation of the tissue with incoherent and/or coherent, polarized monochromatic light, characterized in that the wavelength to be used is selected and the direction of polarization of the light is determined so as to adapt this dextrorotatory or levorotatory orientation to the right or left chirality of the molecules in relation to the treatment to be applied.